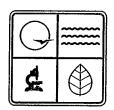
STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 022006-006

Project Number:

2005-05-027

Owner:

Pilot Grove Cooperative Elevator, Inc.

Owner's Address: P.O. Box 171, Pilot Grove, MO 65276

Installation Name: Pilot Grove Cooperative Elevator, Inc.

Installation Address:

12302 Highway 135 South, Pilot Grove, MO 65276

Location Information: Cooper County, S5, T47, R18

Application for Authority to Construct was made for:

Correction to Permit No. 012005-014. Installation of a 143,007 bushel capacity grain bin, a bucket elevator and two 25-ton feed storage bins. This equipment was constructed prior to receipt of a New Source Review permit from the Air Pollution Control Program. Obtaining this permit is part of a remedial action required by the Air Pollution Control Program. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required.

	Standard	Conditions	(on	reverse)	are	applicable	to t	his	permit.
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FEB - 7 2006

EFFECTIVE DATE

DIRECTOR OR DESIGNEE

DEPARTMENT OF NATURAL RESOURCES

Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

Page No.	2
Permit No.	
Project No.	2005-05-027

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Pilot Grove Cooperative Elevator, Inc. Cooper County, S5, T47, R18

Control Program.

- 1. Superseding Condition
 The conditions of this permit supersede all special conditions found in the previously issued construction permits (Permit Number 0995-013, 1095-005, 0896-003, 0896-003A, 052002-003 and 012005-014) from the Air Pollution
- 2. Emission Limitation Particulate Matter Less Than Ten (10) Microns in Diameter (PM_{10})
 - A. Pilot Grove Cooperative Elevator, Inc. shall emit less than 15 tons of particulate matter less than ten (10) microns in diameter (PM₁₀) in any consecutive 12 month period from the non-grandfathered emission units listed in Table 2 (unshaded points).
 - B. Pilot Grove Cooperative Elevator, Inc. shall maintain an accurate record of PM₁₀ emitted into the atmosphere from the non-grandfathered emission units. Attachment A or an equivalent form shall be used for this purpose. Pilot Grove Cooperative Elevator, Inc. shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - C. Pilot Grove Cooperative Elevator, Inc. shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.B. indicate that the source exceeds the limitation of Special Condition Number 2.A.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE SECTION (5) REVIEW

Project Number: 2005-05-027 Installation ID Number: 053-0024 Permit Number:

Pilot Grove Cooperative Elevator, Inc. 12302 Highway 135 South Pilot Grove, MO 65276

Complete: May 12, 2005 Reviewed: September 23, 2005

Parent Company:
Pilot Grove Cooperative Elevator, Inc.
P.O. Box 171
Pilot Grove. MO 65276

Cooper County, S5, T47, R18

REVIEW SUMMARY

- Pilot Grove Cooperative Elevator, Inc. has applied for authority to construct a 143,007 bushel capacity grain bin (Section B, bin 12), a bucket elevator (Section A, feed leg), a 4-ton capacity mixer (Section A, mixer), two feed storage bins (Section A, bins 10 and 11) and a 2,000 bushel per hour loadout spout (Section A, feed loadout spout). This equipment was constructed prior to receipt of a New Source Review permit from the Air Pollution Control Program. Obtaining this permit is part of a remedial action required by the Air Pollution Control Program.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment. Subpart DD of the New Source Performance Standards (NSPS), Standards of Performance for Grain Elevators, does not apply to this installation since the storage capacity of the installation is less than 2.5 million bushels of grain.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of PM₁₀ are conditioned to de minimis levels.
- This installation is located in Cooper County, an attainment area for all criteria air pollutants.

- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since potential emissions of the application are conditioned to de minimis levels.
- Emissions testing is not required for the equipment.
- Revision to the Intermediate Operating Permit application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION/PROJECT DESCRIPTION

Pilot Grove COOP Elevator, Incorporated (Pilot Grove) operates two separate sites located in Pilot Grove, Missouri. Operations and equipment at the two sites include storage bins for feed and grain, fertilizer mixing and storage and animal feed manufacturing. This facility reported to the Missouri Department of Agriculture on July 27, 2005 that they have a total grain capacity of 1,289,000 bushels; therefore, the installation is not subject to any NSPS or NESHAP regulations. This installation however, is an existing major source for PM₁₀.

Pilot Grove has applied for an Intermediate Operating Permit, which is currently under technical review (Project No. 2002-10-012). The following Construction Permits have been issued to Pilot Grove from the Air Pollution Control Program.

Table 1: Previously Issued Construction Permits

Permit Number Description	
0995-013 Add a Dry Fertilizer and Grain Handling Plant	
1095-005 New Elevator Leg, Drag Conveyor, Receiving Pit	
0896-003	Bulk Fertilizer Plant
052002-003	Installation of two storage bins
012005-014	Installation of a new grain bin

On October 27, 2004, a Notice of Violation (NOV), 0881NE, was issued to Pilot Grove for adding a grain bin having a capacity of 143,007 bushels and a bucket elevator prior to receipt of a permit from the Missouri Department of Natural Resources. Additionally, two feed storage bins were viewed on site but were not yet installed. Obtaining this permit is part of a remedial action required by the Air Pollution Control Program. Pilot Grove has entered into a settlement agreement since issuance of the NOV. To ensure that the installation is now current with regards to construction permitting, the entire facility was reviewed.

The installation consists of five sections:

- Feed Handling Section A The oldest portion of the installation, the feed operation receives feed by truck through pits and then elevates it with the grain leg to a number of storage bins (bins 6-0, 4-0, 2-0, G-4, G-3, G-2E, G-2W and G-1). The feed is transferred to a mixer prior to being elevated with the feed leg. The feed is either loaded directly to trucks or into the sacking bins, whereupon the feed is bagged and shipped.
- Grain Handling Section A Grain is received by trucks through pits. The grain is elevated with the grain leg to bins 5-8. A portion of the grain is reelevated with the grain leg to the crimper. After the grain is crimped, it is elevated with the grain leg once more to bins 9-11. The grain is then mixed and elevated with the feed leg to truck loadout.
- Grain Handling Section B The grain elevator portion of the facility receives grain by truck through two pits. The grain is then elevated and transferred to various storage bins (bins 1-12) by feed legs. "Wet corn" that is stored in Bin 1 is elevated with the jump leg to the dryer. From the dryer, the corn is elevated by the discharge leg to bin 4 directly or to the grain receiving leg and then to bins 1-5, before being transferred to trucks for shipping.
- Grain Storage Facility Section C The grain storage facility is located approximately 0.5 miles north of the main facility and serves only to store grain. The applicant has stated that no improvements have been made to the Grain Storage Facility since it was purchased in 1977; all of the equipment located in Section C is grandfathered. Grain is received in a pit, elevated to bins for storage and then re-elevated for loadout to trucks. A receiving pit, elevator leg, dryer and several small bins (numbered 1-7, 9, 12-15), originally located at this site have been removed, or rendered incapable of operation.
- Fertilizer Section D The dry fertilizer plant receives dry material by truck into a pit. The unloading conveyor then transfers the fertilizer to bays. A bobcat type loader then transfers the various fertilizer materials to a mixer. After blending, the mixed fertilizer is transferred by loadout conveyor to waiting trucks.

The following table provides a summary of the identification numbers of equipment at the installation, relevant emission point IDs, the maximum hourly design rate (MHDR) or capacity of each unit, the year the equipment was installed, whether or not the equipment is grandfathered, and if permitted, under what permit number.

Table 2: Equipment/Processes at Pilot Grove*

Section	Equipment ID Number	Emission Point ID Number	Description of Unit	MHDR or Capacity	Install- ation Year	Permit Number
			Feed Handling			
					Pre-	
Α	5	EP-19	Storage bin	21,960 bu	1974	Grandfathered
					Pre-	
Α	6	EP-19	Storage bin	20,520 bu	1974	Grandfathered
	_	55 40	0	00 500 1	Pre-	
A	7	EP-19	Storage bin	20,520 bu	1974	Grandfathered
A	8	EP-19	Storage bin	36,850 bu	2000	052002-003
A	Grain leg	EP-3	Elevator leg	6,000 bu/hr	2000	Like-kind
Α	9	EP-19	Bulk bin	981 bu	1992	Like-kind
Α	10	EP-19	Bulk bin	1,228 bu	2004	N/A
A	11	EP-19	Bulk bin	694 bu	2004	N/A
A	6-0	EP-19	Overhead bin	3,312 bu	1964	Grandfathered
A	4-0	EP-19	Overhead bin	3,312 bu	1964	Grandfathered
Α	2-0	EP-19	Overhead bin	3,312 bu	1964	Grandfathered
٨	C 4	ED 10	Overboad him	224 bu	Pre-	Crandfatharad
Α	G-4	EP-19	Overhead bin	224 bu	1974	Grandfathered
۸	0.0	ED 10	Overboad him	20E hu	Pre-	Crandfatharad
A	G-3	EP-19	Overhead bin	305 bu	1974	Grandfathered
۸	G-2E	EP-19	Overhead hip	408 bu	Pre- 1974	Grandfathered
Α	G-2E	EF-19	Overhead bin	400 DU	Pre-	Grandialnered
Λ	G-2W	EP-19	Overhead bin	408 bu	1974	Grandfathered
A	G-2VV	EF-19	Overnead biri	400 Du	Pre-	Granulatriered
Λ	G-1	EP-19	Overhead bin	305 bu	1974	Grandfathered
A A	X-1	EP-19	Sacking Bulk bin	75 bu	1990	Like-kind
A	X-1 X-2	EP-19	Sacking Bulk bin	100 bu	1990	Like-kind
A	M	N/A	Mixer	4 ton	2004	N/A
A	Feed leg	EP-11	Elevator leg	2,000 bu/hr	2004	N/A
	Feed loadout	E1 -11	Lievator leg	2,000 50/111	2004	IV/A
Α	spout	EP-5	Feed loadout	2,000 bu/hr	2004	N/A
	Spour	Li J	1 cca loadout	2,000 84/11	Pre-	1973
Α	Pit	EP-4	Receiving pit	6,000 bu/hr	1974	Grandfathered
A	C	EP-7	Feed crimper	300 bu/hr	1995	Like-kind
A	Loadout	EP-5	Loadout	6,000 bu/hr	2000	Like-kind
	Loadout	21 0	Grain Handling	0,000 84/11	2000	LIKO KITIG
В	1	EP-18	Storage bin	25,020 bu	1976	Grandfathered
 B	2	EP-18	Storage bin	25,020 bu	1976	Grandfathered
B	3	EP-18	Storage bin	25,020 bu	1976	Grandfathered
B	4	EP-18	Storage bin	40,427 bu	1985	0995-013
В	5	EP-18	Storage bin	40,427 bu	1976	Grandfathered
В	6	EP-18	Storage bin	97,505 bu	1987	0995-013
В	7	EP-18	Storage bin	97,505 bu	1987	0995-013
В	8	EP-18	Storage bin	106,255 bu	1992	0995-013
В	9	EP-18	Storage bin	106,255 bu	1994	0995-013
В	10	EP-18	Storage bin	123,506 bu	2001	052002-003
В	11	EP-18	Storage bin	133,757 bu	2002	Like-kind
	12	EP-18	Storage bin	143,007 bu	2003	012005-014
В	Grain leg #1	EP-3	Elevator leg	6,000 bu/hr	1994	0995-013
	Grain leg #2	EP-3	Elevator leg	1,000 bu/hr	1996	0995-013
В		EP-3	Elevator leg	6,000 bu/hr	1993	0995-013
В	Grain leg #3		D	- 6 000 bu/br	1007	0995-013
B B	Grain pit #1	EP-1	Receiving pit	6,000 bu/hr	1994	
B B B	Grain pit #1 Grain pit #2	EP-1 EP-1	Receiving pit	6,000 bu/hr	1993	0995-013
B B B	Grain pit #1 Grain pit #2 Dryer	EP-1 EP-1 EP-6	Receiving pit Dryer	6,000 bu/hr 7 MMBTU/hr	1993 1996	0995-013 1095-005
B B B	Grain pit #1 Grain pit #2	EP-1 EP-1	Receiving pit	6,000 bu/hr	1993	0995-013

В	Loadout	EP-2	Grain Loadout	6,000 bu/hr	1994	0995-013
Grain Storage Facility						
С	9	EP-18	Storage bin	9,407 bu	1977	Grandfathered
С	10	EP-18	Storage bin	9,016 bu	1977	Grandfathered
С	11	EP-18	Storage bin	9,016 bu	1977	Grandfathered
С	16	EP-18	Storage bin	37,160 bu	1977	Grandfathered
С	17	EP-18	Storage bin	37,160 bu	1977	Grandfathered
С	18	EP-18	Storage bin	3,196 bu	1977	Grandfathered
С	19	EP-18	Storage bin	105,925 bu	1977	Grandfathered
С	Grain leg	EP-3	Elevator leg	5,000 bu/hr	1977	Grandfathered
С	Receiving pit	EP-1	Receiving pit	5,000 bu/hr	1974	Grandfathered
С	Loadout	EP-2	Grain Loadout	5,000 bu/hr	1977	Grandfathered
			Fertilizer			
D	1	N/A	Fertilizer bay	175 ton	1974	Grandfathered
D	2	N/A	Fertilizer bay	175 ton	1974	Grandfathered
D	3	N/A	Fertilizer bay	175 ton	1974	Grandfathered
D	4	N/A	Fertilizer bay	175 ton	1974	Grandfathered
D	5	N/A	Fertilizer bay	175 ton	1974	Grandfathered
D	6	N/A	Fertilizer bay	175 ton	1974	Grandfathered
D	7	EP-17	Fertilizer unloading conveyor	100 ton/hr	1990	0995-013
			Fertilizer loadout			0000 0.0
D	8	EP-14	conveyor	100 ton/hr	1990	0995-013
D	Receiving pit	EP-12	Receiving pit	100 ton/hr	1974	Grandfathered
D	Mixer/blender	EP-13	Fertilizer mixer/blender	8 ton	1995	0995-013
					Pre-	
N/A	Haul road	EP-15	Haul road	N/A	1974	Grandfathered

^{*}Bolded items are "new" equipment for this project. Shaded items are grandfathered.

For purposes of simplification, the emission points listed in column 3 of Table 2 above relate to the following processes:

- Grain (Sections B and C)
 - EP-1 Grain receiving
 - EP-2 Grain shipping
 - EP-3 Elevator legs
 - EP-6 Grain dryer (both fuel combustion and grain throughput)
 - EP-18 Storage bin vents
- Feed Mill (both grain and feed processes occurring in Section A are considered as feed, here)
 - EP-4 Grain receiving
 - EP-5 Feed shipping
 - EP-7 Grain cracking
 - EP-8 Grinding
 - EP-9 Handling
 - EP-10 Ingredient receiving
 - EP-11 Feed legs
 - EP-19 Storage bin vents
- Fertilizer (Section D)
 - EP-12 Dry fertilizer receiving
 - EP-13 Dry fertilizer blending/mixing
 - EP-14 Dry fertilizer loadout
 - EP-17 Fertilizer unloading conveyor
- Miscellaneous

EP-15 Haul road

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators and Processes* (05/2003).

To ease the recordkeeping burden on the applicant, all non-grandfathered sources at the entire installation were reviewed; a de minimis limitation was placed on this equipment at the request of the applicant. The recordkeeping included as part of this permit requires the applicant to record the amount of grain, feed and fertilizer processed each month to insure that the de minimis limit is maintained on a 12-month rolling basis. The recordkeeping, though easy to use, is highly conservative in that it assumes that all grain will be processed through Section B of the installation, since the composite emission factor for that Section is the highest. Should the installation ever decide to keep more exacting records of how much grain is processed through Section A, Section B and Section C individually, the applicant may use the composite emission factors listed below and avoid counting emissions from the grandfathered equipment found in Section C:

Section A – grain 0.0730 lb/ton
 Section B 0.1357 lb/ton
 Section C 0.0000 lb/ton

Existing potential emissions were taken from Permit No. 052002-003. Existing actual emissions were taken from the applicant's 2004 Emissions Inventory Questionnaire (EIQ) submittal. Potential emissions of the application represent the potential of the non-grandfathered equipment at the installation, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 3: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2004 EIQ)	Potential Emissions of the Application	Project Conditioned Potential
PM ₁₀	15.0	558.0	5.26	339.55	< 15.0
SOx	40.0	0.02	N/D	N/A	N/A
NOx	40.0	2.93	N/D	N/A	N/A
VOC	40.0	0.16	N/D	N/A	N/A
CO	100.0	2.47	N/D	N/A	N/A
HAPs	10.0/25.0	1.97	N/D	N/A	N/A

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned to de minimis levels.

APPLICABLE REQUIREMENTS

Pilot Grove shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110
 The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- Operating Permits, 10 CSR 10-6.065
- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170
- Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220
- Restriction of Emission of Odors, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400
- Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating, 10 CSR 10-3.060

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Lina Klein Environmental Engineer	Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated May 4, 2005, received May 5, 2005, designating Pilot Grove Cooperative Elevator, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition.
- Northeast Regional Office Site Survey, dated May 16, 2005.

Attachment A – PM₁₀ Compliance Worksheet

Pilot Grove CoOp Elevator Cooper County, S5, T47, R18 Project Number: 2005-05-027 Installation ID Number: 053-0024

Permit Number:

This sheet covers the period from		_to_		
•	(month, year)		(month, year)	

Copy this sheet as needed.

Column A		Column B	Column C	
(a) Amount of Material Shipped (Tons)		PM10 Emission Factor (Pounds/Ton)	(b) Monthly PM10 Emissions (Tons)	
Grain		0.1357		
Feed		0.0567		
Fertilizer		0.0600		
(c) Total P	M ₁₀ Emissions Calculated fo			
(d) 12-Moi Tons:	nth PM ₁₀ Emissions Total Fro			
(e) Monthl	y PM ₁₀ Emissions Total (c) fr			
(f) Current	12-month Total of PM ₁₀ Emi			

- (a) Record the amount of grain, feed, and fertilizer shipped in Tons.
- (b) Determine the Monthly PM10 Emissions using the following formula for grain, feed, and fertilizer: [Column A] x [Column B] x [0.0005]
- (c) Summation of Column C in Tons.
- (f) Calculate the new 12-month PM₁₀ emissions total. **A 12-Month PM₁₀ emissions total (e) of less than 15.0** tons indicates compliance.